

# Notice of Allowability

Application No.

09/829,169

Examiner

Rodney G. McDonald

Applicant(s)

VINCENT, STEPHEN C.

Art Unit

1753

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Appeal Brief filed 12-8-04.
2. ☒ The allowed claim(s) is/are 1-5, 15 and 16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
RODNEY G. McDONALD  
PRIMARY EXAMINER

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

Claims 1-5 are allowable over the prior art of rejection because the prior art of record does not teach a method of manufacturing thin film resistors comprising forming a plurality of discrete component thin film chip resistors, each of the plurality formed by depositing a non-tantalum metal film resistive layer on a thin film resistor layer on a thin film resistor substrate; attaching a thin film resistor termination on each end of the metal film resistive layer; and depositing an outer moisture barrier consisting of tantalum pentoxide directly overlying and contacting the metal film resistive layer to form one of the plurality of thin film chip resistors wherein the moisture barrier is formed from deposition of the tantalum pentoxide and not through oxidation of tantalum and wherein the outer moisture barrier reduces failures due to electrolytic corrosion under powered moisture conditions; exposing selected thin film chip resistors to powered moisture conditions; observing failures due to electrolytically corrosion under powered moisture conditions in the selected thin film chip resistors.

Claim 15 is allowable over the prior art of record because the prior art of record does not teach a method of manufacturing thin film resistors comprising forming a plurality of discrete component thin film chip resistors, each of the plurality formed by depositing a non-tantalum metal film resistive layer on a substrate; attaching a termination on each end of the metal film resistive layer; depositing an outer moisture barrier consisting of tantalum pentoxide directly overlying and contacting the passivation layer to form one of the plurality of thin film chip resistors wherein the moisture barrier is

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formed from deposition of the tantalum pentoxide and not through oxidation of tantalum; exposing selected thin film chip resistors to powered moisture conditions; observing failures due to electrolytically corrosion under powered moisture conditions in the selected thin film chip resistors.

Claim 16 is allowable over the prior art of record because the prior art of record does not teach a method of manufacturing a discrete component thin film chip resistor comprising depositing a non-tantalum metal film resistive element on a thin film resistor substrate; attaching a thin film resistor termination on each end of the non-tantalum metal film resistive element; depositing an outer moisture barrier consisting of tantalum pentoxide directly overlying and contacting the non-tantalum metal film resistive element; wherein the moisture barrier is formed from deposition of the tantalum pentoxide and not through oxidation of tantalum; wherein the outer moisture barrier reduces failures due to electrolytic corrosion under powered moisture conditions.

Regarding the prior art applied, Copetti and Young do not teach the claimed subject matter because Copetti and Young fail to show utilizing tantalum pentoxide as an outer moisture barrier layer of a thin film resistor. Furthermore, Copetti and Young do not teach forming a plurality of thin film chip resistors. Copetti show a module and Young is directed to Capacitors. Nakamura et al. is related to thermal print heads and not to resistors. DerMarderosian, Jr. fail to teach testing thin film resistors. Minami also teach thermal print head manufacture and not manufacture directed to thin film resistor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

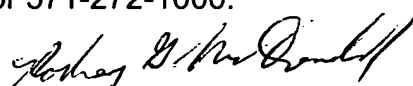
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney G. McDonald  
Primary Examiner  
Art Unit 1753

RM  
March 7, 2007